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ABSTRACT

Characteristics of graduates who completed bachelor's degrees within 4 years of high school graduation were compared with graduates who took longer than 4 years. Data were obtained from the Postsecondary School Transcripts Study, a supplement to the National Longitudinal Study of the High School Class of 1972. The sample consisted of 4,440 graduates who received the bachelor's degree by December 1984. Less than half the students who earned a bachelor's degree entered college by the fall after high school graduation and completed their degree within 4 years. Fifty-one percent took more than 4 years from high school graduation to complete their degree. Three-fourths earned their degree within 5 years after high school graduation, and 24% took 6, 7, or more years. The effects of the following characteristics on degree completion were assessed: aptitude test composite score; high school curriculum (academic, general, vocational); socioeconomic status; and region of high school (Northeast, North Central, South, West). The percentage of degree recipients who completed a degree within 4 years was also calculated for selected majors (social sciences, mathematics and sciences, education, humanities, business and marketing, and engineering). Technical notes on the study are appended. (SW)

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Completion Time for Bachelor's Degrees

The traditional pattern for earning a bachelor's degree is to enter college soon after high school graduation and complete studies for a baccalaureate within 4 years. According to the Center for Education Statistics (CES), less than half of the students who earned a bachelor's degree followed this traditional pattern. Fifty-one percent of bachelor's degree recipients (from the high school class of 1972)[1] took more than 4 years from high school graduation to complete their degree.

Though three-fourths earned their degree within 5 years after high school graduation, 24 percent took 6, 7, or more years (chart 1).

For this report, bachelor degree recipients who began college by the fall after high school graduation and earned degrees within 4 years are characterized as following the traditional pattern of degree completion (table 1). The bachelor's degree recipients who followed a non-traditional pattern either (1) took longer than 4 years to complete their degree or (2) began college later than the fall after high school graduation, or (3) both (table 1).

Table 1.—Percent of bachelor's degree recipients from the High School Class of 1972, by beginning and completion time of collegiate studies

Began college studies	Total	Completed degrees in 4 academic years	Completed degrees in more than 4 academic years
Total	100	57	43
By the fall after school graduation	87	49	38
Later than the fall after high school graduation	13	7	5

Note—Details may not add to total because of rounding.

Completion of Bachelor's Degrees Within 4 years of High School Graduation

Among certain groups, there were bachelor degree recipients more likely than others to follow the traditional pattern for completing a bachelor's degree. For example, women were more likely to follow this pattern (56 percent) than were men (43 percent). There was no statistically significant difference between whites and blacks.

Fifty-six percent of the bachelor's degree recipients who scored in the highest quartile of the NLS Aptitude Test (taken in high school) followed the traditional pattern of degree completion; only 25 percent of those who scored in the lowest quartile followed this pattern. Of those baccalaureate students who took a college preparatory curriculum in high school, 53 percent earned baccalaureates within 4 years of high school. Of

[1]This analysis is based on college transcripts of participants in CES' National Longitudinal Surveys of the High School Class of 1972 (NLS-72) who earned a baccalaureate by December 1984. See appendix for more information.

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those who took a general high school curriculum, 37 percent followed the traditional pattern. Twenty-eight percent of those who took vocational high school preparation followed the traditional pattern (table 2).

Of bachelor's degree recipients from high socioeconomic backgrounds, 52 percent followed the traditional pattern; 43 percent from low socioeconomic backgrounds followed this pattern.

Surprisingly, there were large differences related to the region of the United States where the student attended high school. The proportion of bachelor's degree recipients from the West (34 percent) who followed the traditional pattern was much lower than the proportion from the Northeast (60 percent). Graduates from the North Central and Southern States were in the middle at 47 percent (table 2).

Only one-third of the bachelor's degree recipients graduated from the college where they began their studies. It might be expected that transferring to another college would delay degree completion. Of graduates who transferred colleges, 47 percent finished in the traditional pattern, compared with 54 percent who attended only one college.

A graduate's major also accounted for differences in following the traditional completion pattern for a degree. For example, the proportion of graduates in the social sciences, sciences, and mathematics who followed the traditional pattern was higher than that for graduates in business or engineering (chart 2).

Bachelor's Degree Recipients Who Did Not Follow The Traditional Pattern Of Degree Completion

Of those graduates who received their degree later than 4 years from high school graduation, 70 percent started college by the fall after high school graduation, but took longer than 4 academic years to complete bac-

Table 2.—Percent of bachelor's degree recipients who earned degrees within 4 years of high school graduation, by selected high school characteristics

Characteristic*	Percent receiving baccalaureates	
	Within 4 years after high school graduation	In more than 4 years after high school graduation
Total	49	51
Aptitude test composite score		
Highest quartile	56	44
Middle quartiles	41	59
Lowest quartile	25	75
High school curriculum		
Academic	53	47
General	37	63
Vocational	28	72
Socioeconomic status composite		
Highest quartile	52	48
Middle quartiles	48	52
Lowest quartile	43	57
Region of high school		
Northeast	60	40
North Central	47	53
South	47	53
West	34	66

* See appendix for more information on these classification variables.

Chart 1.—Bachelor's degree recipients, by time from high school graduation to completion of baccalaureate.

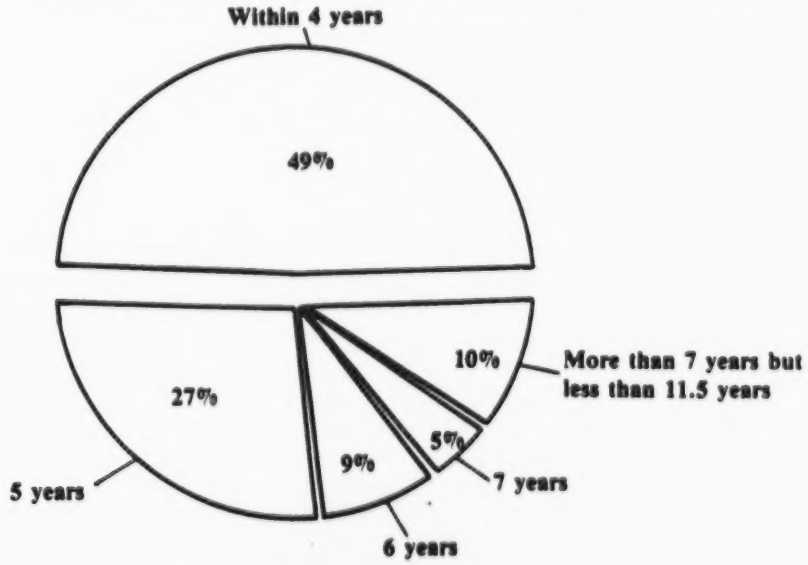
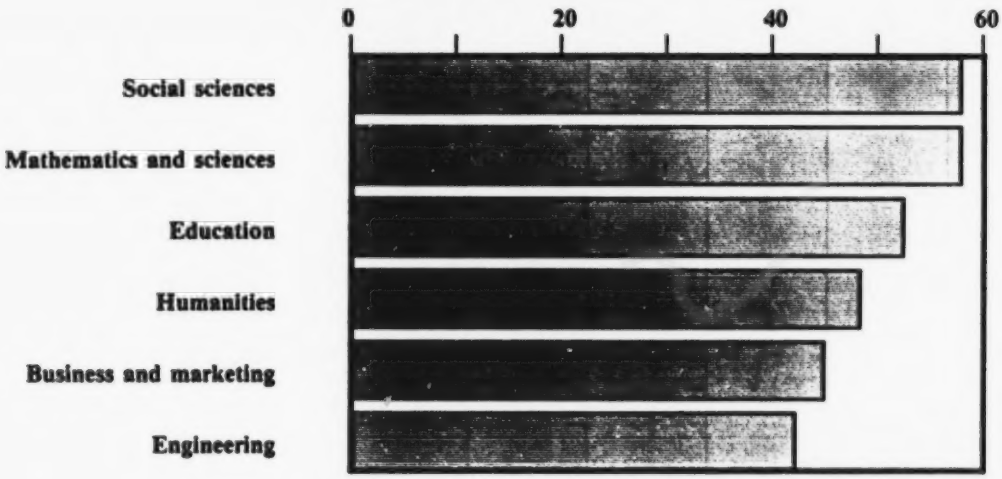


Chart 2.—Percentage of bachelor's degree recipients who completed a degree within 4 years following high school graduation, by selected major fields of study



calaureate studies. The other 30 percent did not begin college by the fall after high school graduation.

Of the graduates who began college studies late, 17 percent started in the second semester. Another third waited until the next academic year to enroll (table 3).

Table 3.—Percent distribution of bachelor's degree recipients who began college later than the fall after high school graduation, by when they began college

Time from high school graduation	Percent distribution of delayed entrants by when they began college
	(In percent)
Total	100
1 year*	17
2 years	32
3 years	23
4 years	13
5-6 years	11
7 or more years	5

* By definition, delayed entrants are those who did not begin college by the fall after high school graduation, so this category comprises those who enrolled for the first time in the second semester/quarter.

Significant proportions of persons who delayed entering college were taking their first college course 3 or 4 years after high school graduation (table 3). Delayed entrants were just as likely to earn their degree within 4 academic years as those who began college in fall after high school (58 percent for both groups).

Students who began college by the fall after high school graduation but took longer than 4 academic years to complete their degree composed the majority who followed the non-traditional pattern of degree completion. Most of the baccalaureate students who started college right after high school but did not finish within 4 academic years took only 1 more year to finish coursework. However, the time from their first college course until graduation ranged up to 11.5 years when the transcript data were collected. There may be members of the high school class of 1972 still working for their bachelor's degree who were excluded from the transcript collection and analysis.

There are many reasons for taking more than 4 academic years to complete a baccalaureate. An earlier analysis of NLS students who entered academic college programs by the fall after high school, but were still enrolled in college 4.5 years later, indicates 20 percent attended part-time, 14 percent were in 5-year programs, and 35 percent left college and then returned.[2]

Two other factors cited in the report were changing college majors and transferring to another institution. Both usually increase the number of credit hours taken to graduate. Transcripts show that bachelor's degree recipients who graduated within 4 years of high school earned fewer course credits (an average of 124 credits) compared with those who followed the non-traditional pattern (129 credits).

[2]U.S. Department of Education, Center for Statistics, *National Longitudinal Study: A Capsule Description of Young Adults Four and One-half Years After High School.* Contract No. OEC 0-73-6666, Washington, D.C., U.S. Government Printing Office, 1979, and *A Capsule Description of Young Adults Seven and One-half Years After High School,* Contract No. OEC 0-73-6666, Washington, D.C., U.S. Government Printing Office, 1981.

Technical Notes

Data Source

The data in this report were from the Postsecondary School Transcripts Study, conducted by the Center for Education Statistics as a supplement to the National Longitudinal Study of the High School Class of 1972 (NLS-72). The transcript study was designed to obtain reliable and objective information about the postsecondary educational experiences of NLS-72 sample members.

Approximately 15,000 members of the NLS-72 sample reported attending one or more postsecondary institutions by 1980. Based on this information, transcript requests were made to approximately 4,300 schools, including public two-year and four-year institutions, private non-vocational schools, and private vocational schools.

Only the transcripts of students who received bachelor's degrees by December 1984 were analyzed. Of the 4,791 transcripts for sample members, about 6 percent were dropped from the study because of incomplete or missing data or because the schools were foreign or unclassified. An additional 1 percent of the transcripts were dropped because of out-of-range values. The result was an analysis sample of 4,440 bachelor's degree recipients.

Precision of Estimates

The percentages in this report are estimates derived from 4,440 transcripts from the NLS-72 sample members who completed a baccalaureate by 1984. The sample data were inflated to be nationally representative of baccalaureate students from the high school class of 1972. The data represent only those who completed a bachelor's degree, not all who attended a postsecondary education institution.

Group differences in the text are statistically significant at the 95 percent confidence level. The approximate standard error of a percent (p) in this report can be obtained by s.e. (p) = $D\sqrt{p\,(100\text{-}p)/n}$ where n is the sample size and D is a correction factor for design effect, estimated to be 1.2. The sample size for various groups of baccalaureate students in the report are in the next section.

The sampling percentage and an estimate of its standard error permit the construction of interval estimates with a prescribed confidence that the interval includes the average result of all possible samples. Assuming that all possible samples were selected in such a way that each was surveyed under essentially the same conditions, then if a sample percentage and its estimated standard error are calculated for each sample:

- Approximately two-thirds of the intervals from one standard error below the estimate to one standard error above the estimate will include the average value of all possible samples.
- Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate will include the average value of all possible samples.

Classification Variables

1. Completion time of a baccalaureate: This was measured using two pieces of information from college transcripts—the beginning month/year of the first course taken for the bachelor's degree, and the month/year when the bachelor's degree was conferred. Those persons in the high school class of 1972 who earned their degree by July 1976 were classified as following the traditional pattern of completion of a baccalaureate.
2. Traditional pattern of bachelor's degree completion: (1) entrance in college by fall after high school graduation and (2) completion of baccalaureate studies within 4 academic years. Sample sizes are in table A.
3. Aptitude test composite: Late in their senior year, 16,860 sampled NLS-72 participants were given a battery of 6 tests. The general academic ability index was derived from 4 of the 6 scores: vocabulary, reading, letter groups, and mathematics.*

Table A.—Sample sizes of bachelor's degree recipients from the high school class of 1972, by beginning and completion time of collegiate studies

Began college studies:	Total	Completed degree within 4 academic years	Completed degree in more than 4 academic years
Total	4,440	2,459	1,981
By the fall after high school graduation	3,887	2,134	1,753
Later than the fall after high school graduation	553	325	228

Note.—These are unweighted cases; therefore nationally representative percentages cannot be calculated from this table.

* U.S. Department of Education, Center for Statistics, *Psychometric Analysis of the NLS and the High School and Beyond Test Batteries.* Washington, D.C., U.S. Government Printing Office, 1985.

Factor analysis of the test scores revealed a basis for constructing a composite score by forming an equally weighted linear composite of these four tests. Each test added to the composite was standardized to a mean of 50 and a standard deviation of 10. An individual's score was then classified into a high, middle, or low category depending upon whether the score was in the highest, middle two, or lowest quartile. A substantial proportion of bachelor's degree recipients (29 percent) did not have test scores; most were from the "resurvey" group who did not originally participate during their senior year when testing was conducted. The sample sizes for this study are: High Ability (1,786), Middle Ability (1,177), and Low Ability (202).

4. High school curriculum: High school program is defined by three categories: general, academic, and vocational-technical (agricultural occupations, business or office occupations, distributive education, health occupations, home economics occupations, and trade or industrial occupations). The classification was based on the student's own indication of his or her high school curricular program. If the student did not provide this information, the School Record Information Form, completed by the Survey Administrator, was used as a backup source of data. The sample sizes for this study are: General (897), Academic (3,356), and Vocational (187).
5. Socioeconomic status composite (SES): This index was based on a composite score involving five components: father's education, mother's education, parental income, father's occupation, and a household items index. These components were first subjected to a factor analysis that revealed a common factor with approximately equal weights for each of the five components. A continuous measure of SES was then computed for each respondent by averaging the standardized components. The continuous SES score was then assigned to a high, middle, or low category depending on whether it fell in the highest quartile, middle two quartiles, or lowest quartile. The cutting points for the quartiles were based upon the population SES distribution estimated using sample weights. Approximately 1 percent of bachelor's degree recipients were not classified by SES. The sample sizes for this study are: High SES (2,076), Middle SES (1,801), and Low SES (524).
6. Region of high school: The NLS bachelor's degree recipients can be classified into one of four regions in which their high school was located: Northeast, North Central, South, and West. There were no respondents with missing region codes. The sample sizes (in parentheses) and the States in each of the regions are:

   Northeast (1,044): Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

   North Central (1,228): Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

   South (1,522): Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

   West (646): Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii.

7. Selected major fields of study: Because many of the 50 discipline divisions (in the classification of programs used by the Center for Education Statistics) had a relatively small number of graduates from the sample, it was decided to group similar categories to provide sufficient sample sizes for reliable estimates. The following broad groupings were used:

Selected broad groupings and sample size	Includes these major disciplines divisions*
Mathematics/sciences (437)	Computer science, life sciences, physical sciences, and mathematics
Humanities (272)	Foreign languages, English, philosophy, religion, and visual and performing arts
Social sciences (700)	Psychology, area and ethnic studies, law, libraries, and social sciences
Business (694)	Business and management, and marketing and distribution
Education (757)	Education
Engineering (188)	Engineering

* U.S. Department of Education, Center for Statistics, *A Classification of Instructional Programs*. Washington, D.C., U.S. Government Printing Office, 1981.

For More Information

This report was prepared by Susan Hill, Center for Education Statistics, and Maria Owings, under contract to the Center. For information on the Transcript Data File, contact Dennis Carroll, Center for Education Statistics, Longitudinal Studies Branch, 555 New Jersey Avenue NW., Washington, D.C. 20208, (202) 626-9120.